and means for rotating the same, a series of blade-carriers, and means for actuating the latter to apply the respective blades carried thereby to adjacent abrading-wheels in alternation.

36. In a machine of the character described, the combination of a series of abrading-wheels and means for rotating the same, a series of blade-carriers each provided with a detachable, self-alining blade-holder, and means for actuating said carriers to apply each blade to adjacent abrading-wheels in alternation.

37. In a machine of the character described, a table provided with a series of housings projecting above its top surface, a series of spindles journaled respectively in said housings, a cap carried by each spindle and covering the top of the corresponding housing, and an abrading-wheel carried by each spindle above

38. In a machine of the class described, the combination of a series of abrading-wheels and means for rotating the same, a series of blade-

carriers provided respectively with detachable blade-holders, and means for actuating 25 said carriers to apply the blades to the wheels.

39. In a machine of the character described, the combination of a circular series of abrading-wheels mounted on vertical axes and means for rotating the same, a concentric series of 30 blade-carriers, and means for actuating said carriers to apply the blades to the wheels.

40. In a machine of the character described, the combination of a circular series of abrading-wheels and means for rotating the same, 35 means for simultaneously reciprocating said wheels axially, a concentric series of bladecarriers and means for actuating said carriers to apply the blades to the wheels.

In testimony whereof I have hereunto sub- 40 scribed my name this 13th day of March, 1902.

WILLIAM EMERY NICKERSON.

Witnesses:

R. M. DE VIGNIER,

E. D. CHADWICK.